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Robert Ferber and Lucy Chao Lee
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1.1 Introduction

The purpose of this paper is to explore the rate at which young married couples accumulate durable goods and investigate to what extent socioeconomic and attitudinal variables differentiate between couples that tend to accumulate durable goods rapidly and those that do not. A particular focus is on the influence of the stock of durables on future stocks and durables purchases -- do such stocks seem to depress or stimulate future purchases of stocks?

Paralleling these objectives, this paper is divided into four parts. Following a brief description of the data and the plan of analysis in this first part, information is provided in the second part on the rate of acquisition of different durable goods by the couples in the sample and of the extent to which different types of durable goods were purchased during the first five years of marriage. The extent to which couples differ in their ownership of stocks of durable goods at the end of these five years is also explored in this part. Factors that might influence the differential rates of acquisition of durable goods and different amounts of stock at the end of the five years are explored in the third part of the paper, where multivariate techniques are used to ascertain the extent to which such differences can be explained by socioeconomic and attitudinal variables. A final section of the paper summarizes the results obtained, discusses their implications and suggests avenues for future research.

1.2 The Data

The data used in this study come from a panel in Peoria and Decatur, Illinois, based on the cohort of couples married in the summer of 1968 in those two cities. The initial sample, selected in the fall of 1968, consisted of 313 couples. This panel had been interviewed nine times as of the date when this analysis was carried out (and has since been interviewed a tenth time). After nine waves, the size of the panel was down to 259, although the base for the analysis is less than this figure mainly because not all the couples were interviewed in each wave.

Various types of data have been collected during these interviews. The most relevant types for the purposes of this analysis are the following:

a. Purchases of durable goods.

b. Plans to purchase durable goods.

c. Socioeconomic characteristics of each member of the couple.

d. Information on various aspects of their personality and attitudes toward life.

A principal focus of these interviews was on the acquisiton of major different durable goods, that is, those costing over $100.* More specifically, the durable goods covered in this study refer to 13 items, namely:

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*Certain other durables are excluded from this analysis either because of their heterogeneous nature, e.g., furniture, or because of their low dollar value, e.g., irons.

Automobiles
Televisions -- black and white
Televisions -- color
Stereos
Refrigerators
Freezers
Stoves
Washers
Dryers
Room air conditioners
Central air conditioning
Dishwashers
Disposals

Information on ownership of these durables was obtained on the first wave of interviews, as of the time of marriage (summer 1968), and similar information was obtained in the eighth wave, in the fall of 1973. In addition, purchase information on each of these durables was sought on each wave of interviews after Wave 1, so that purchases can be compared with ownership throughout this period.

1.3 Plan of Analysis

A central question explored in this study is the rate of purchase of these durable goods over the first six years of the marriage and the relationship of these purchases to initial stocks and to socio-economic and attitudinal characteristics of these couples. Thus, do couples in the early stage of their married life reduce their rate of purchases as they acquire more durable goods or do they keep acquiring durables more or less continuously? In other words, are these purchases better explained by the hypothesis of saturation or by the opposite hypothesis of rising aspirations? Also, are couples with relatively large stocks of durables at one time also likely to have relatively

large stocks of durables at later times? To what extent do stocks at earlier times help explain later purchases and levels of stocks after socioeconomic and attitudinal variables are taken into account?

The analysis is carried out first by examining the relationships between purchases and ownership on the basis of cross-tabulations and then using two types of multivariate analysis to investigate the influence of possibly relevant variables in explaining durables ownership and purchases.

2. Purchase and Ownership

A general idea of the relationship between durable goods purchases of particular products over the six year period and ownership of that product at the time of marriage is provided in Table 1 for each of the 13 durables covered in this study. One thing evident in this table is that an appreciable number of these durables were already owned by the couples at the time of marriage. Thus, approximately half or more of the couples owned at that time at least one automobile, a black and white television set, a stereo set, a refrigerator and a stove. Durables not owned at the time of marriage were primarily, as one might expect, durables that were in the growth phase of their product life cycle and hence were not widely owned by the population at large, such as color televisions, freezers, dishwashers and automatic garbage disposals.

In terms of purchase patterns, an examination of Table 1 suggests two distinct patterns. One pattern is for an equal percentage or more purchases of the durable to be made by the initial owners of that good. For example, of those couples owning a black and white television set at the time of marriage, 37 percent purchased additional sets in the

following six years, whereas of those not owning a black and white television at the time of marriage, less than one-quarter bought these sets during the same period. Rather surprisingly, percentagewise more purchases by initial owners than initial nonowners were reported for central air conditioning, freezers, dishwashers and disposals. For each of these goods, however, the sample size is very small for the initial owners, and it appears that many of the purchases by this group were for replacement purposes.

The second principal pattern, a pattern that would support the saturation hypothesis, is for more purchases to be made by initial nonowners than owners. As is evident in Table 1, this pattern is pronounced for color television sets, stereo sets, refrigerators, stoves, washers, dryers and room air conditioners. With the exception of the first two, all of these durables are household items, and all but dryers could probably be classified as necessities given the fact that most of these couples were purchasing homes during this period.

A broader picture of the overall relationship between purchases and initial ownership is provided by Table 2, which presents cross-tabulations of the number of durables purchased in the first six years after marriage by the number of durables owned at the time of marriage. Two sets of comparisons are presented, one including automobile purchases and the other excluding them, done to examine whether the inclusion of automobile purchases seems to alter the relationship between purchases and ownership for the other durables. To ensure enough observations in each category of durables owned, three such categories were constructed for the stock of durables in Wave 1 and also for the total purchases made in the six-year period.

1. Durables Ownership at Time of Marriage and Number of Purchases in Subsequent Six Years

Durable good	Initial ownership (pct.)	Percent distribution by number of purchases of good			
		0	1	2 or more	Total
Automobile	Yes (96.5)	3.0%	18.5%	78.5%	100.0%
	No (3.5)	0	33.3	66.7	100.0
Television/ black and white	Yes (73.0)	63.0	33.9	3.1	100.0
	No (27.0)	76.6	17.0	6.4	100.0
Television/ color	Yes (23.6)	61.0	26.8	12.2	100.0
	No (76.4)	26.3	61.7	12.0	100.0
Stereo	Yes (60.9)	53.8	32.1	14.1	100.0
	No (39.1)	38.2	47.1	14.7	100.0
Refrigerator	Yes (51.7)	45.6	45.6	8.8	100.0
	No (48.3)	10.7	61.9	27.4	100.0
Freezer	Yes (1.7)	33.3	33.3	33.3	99.9
	No (98.3)	71.3	24.6	4.1	100.0
Stove	Yes (49.4)	45.3	50.0	4.7	100.0
	No (50.6)	13.6	56.8	29.6	100.0
Washer	Yes (20.1)	40.0	57.1	2.9	100.0
	No (79.9)	13.7	66.2	20.1	100.0
Dryer	Yes (13.8)	54.2	45.8	0	100.0
	No (86.2)	21.3	62.7	16.0	100.0
Room air conditioner	Yes (20.1)	65.7	25.7	8.6	100.0
	No (79.9)	44.6	40.3	15.1	100.0
Central air conditioner	Yes (3.4)	50.0	50.0	0	100.0
	No (96.6)	74.4	23.8	1.8	100.0
Dishwasher	Yes (1.7)	33.3	66.7	0	100.0
	No (98.3)	70.8	24.0	5.3	100.1
Disposal	Yes (2.9)	60.0	40.0	0	100.0
	No (97.1)	82.8	12.4	4.7	99.9

2. Durable Goods Ownership at Time of Marriage and Later Purchases

Number of durables purchased next six years	Number of durables owned at marriage			
	0-3	4-5	6-11	Total
		A. Including automobiles		
2 - 7	23.0%	25.8%	39.5%	27.6%
8 - 11	40.5	38.7	39.5	39.6
12 - 20	36.5	35.5	21.0	32.8
Total	100.0%	100.0%	100.0%	100.0%
Median	10.0	9.0	8.0	9.0
Base (families)	74	62	38	174
		B. Excluding automobiles		
2 - 5	23.0%	21.0%	42.1%	26.4%
6 - 8	35.1	48.4	36.8	40.2
9 - 17	41.9	30.6	21.0	33.3
Total	100.0%	100.0%	100.0%	99.9%
Median	7.5	7.0	6.0	7.0
Base (families)	74	62	38	174

Judging from Table 2, whether automobiles are included or excluded, the table indicates a pronounced tendency for those owning few durables at marriage to make more purchases later on. Thus, from Part A of Table 2, of those owning less than four durables, 36 percent bought 12 or more durables in the following six years as compared to only 21 percent of those owning six or more durables who made this many purchases. Also, note that the median number of purchases declines monotonically as the number of durables owned at marriage increases. The same relationships are apparent in Part B.

Clearly, the number of purchases made by these couples in the first six years of their marriage was substantial on any basis of comparison. It therefore seems relevant to ask what can be said of the pattern of these purchases. Thus, was this purchase rate rising over time, declining or something else?

Some information on this question is provided by Table 3. This table shows for the couples owning a particular number of durable goods as of one wave of interviews, what proportion purchased one or more durables to the time of the next wave.* To ensure enough observations in each category of durable goods owned, three such categories were formulated for every wave, namely, relatively few goods owned (at that time), an average number of goods owned, and many goods owned. The definitions for these three categories necessarily varied from one wave to another and it does not seem necessary to give them here; some idea of these definitions is provided on page 12 in connection with the multivariate analysis, where the definitions are given for Waves 1, 4 and 9. The main criterion in all cases was to have approximately equal numbers of families in the three groups in a particular wave

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* *The definition of durables stock used here allows for only one durable of each good so that, for example, with 13 goods the maximum stock would be 13. An alternate definition allowing for more than one durable was also tried (assuming a purchase was reported as an addition to stock), and yielded the same results.

3. Percent of Couples Purchasing Durables Between Waves t and t+1, by Durables Owned on Wave t

Period between Waves t and t+1	Percent of purchases by couples owning specified durables on Wave t: Few	Average	Many	Total sample
	A. Including automobiles			
1-2	45.1%	64.5%	60.5%	55.8%
2-3	69.5	57.1	55.9	60.9
3-4	43.5	56.9	51.9	50.6
4-5	65.2	56.7	55.9	58.6
5-6	83.6	82.5	83.1	83.3
6-7	83.0	84.8	66.7	79.9
7-8	72.7	52.9	72.6	64.4
8-9	68.0	62.7	77.1	69.0
	B. Excluding automobiles			
1-2	35.1%	51.6%	39.5%	42.0%
2-3	56.9	43.9	44.1	48.3
3-4	35.0	45.0	35.2	38.5
4-5	40.0	46.7	39.1	42.0
5-6	75.4	71.9	64.3	70.7
6-7	60.8	70.4	45.2	61.5
7-8	54.5	50.0	50.7	51.1
8-9	52.0	31.4	56.2	47.1

As in the case of Table 2, these purchase percentages were computed both including and excluding automobiles. As an example of what Table 3 tells us, the first row of Part A indicates that of the couples owning few durables on Wave 1, 45 percent purchased one or more durables to the time of the second wave if automobiles are included, and 35 percent bought one or more durables during this period if automobiles are excluded. Also as of Wave 1, of the couples owning many durables, 60.5 percent bought at least one durable in the period to the second wave if automobiles are included, whereas this percentage is slightly under 40 percent if automobiles are excluded.

Now, what does this table tell us about purchase patterns? In both cases (including or excluding automobiles), the answer seems to vary with time after marriage. In the first six months couples owning many durables also purchased more durables than those owning only a few. In the next four years, however, couples owning a few durables purchased at least as many more durables as those with large inventories, though somewhat paradoxically often the highest frequencies of purchases are observed for the couples owning an average number of durables. By Wave 8, in the fifth year of marriage, a reversal seems to take place with a higher frequency of purchases by couples owning many durables than by couples owning few durables.

In view of this rather mixed picture, it seems all the more necessary to turn to multivariate analysis to try to sort out the inventory effect on purchases from that of other factors that are undoubtedly affecting this relationship. This is the subject of the next section.

3. Tests of Hypotheses

At least two hypotheses would seem to evolve from the results of the preceding section. One hypothesis is that couples that start out at the time of marriage with a relatively large stock of durables tend to maintain relatively large stocks of durables as the marriage wears on. The presumption is that certain couples have an inherent preference for durables that manifests itself very early in the marriage and continues to manifest itself over time. Some evidence for this view is provided by those data in Table 1 that showed that, for some of the durables, the couples making the most purchases in the later years were those that owned these durables in the very beginning. However, the evidence on this point in Table 1 was rather mixed, plus the fact that those data referred to individual durables whereas we are now considering the aggregate of all durables covered in this study. In addition, we now seek to take into account other possibly relevant variables, both socioeconomic and attitudinal, to see if the couples that own more durables at one time of the marriage continue to own more durables at other times, at least within the relatively short span of time covered, after allowance for these other factors.

The second hypothesis stems from Tables 2 and 3 and focuses more directly on the phenomenon of saturation. Based on the foregoing results, it postulates that the stock of durables already owned exerts a negative influence on future purchases. In other words, couples with more durables on hand are less likely to add to their stock in the following years. While this hypothesis is suggested by the data in Tables 2 and 3, it remains to be determined whether the same relationships are obtained when other relevant variables are included in the analysis.

Both of these hypotheses are explored in a multivariate framework that includes attitudinal and purchase likelihood variables on the one hand and socioeconomic variables on the other hand. The fact that both of these types of variables had to be included in this analysis made possible the opportunity to explore their relative importance.

A wide range of attitudinal variables were available, principally relating to long-term goals and aspirations, shopping attitudes, satisfaction with life, and purchase likelihood;* the latter were the only variables specific to the durables under study. These variables were available, separately for the husband and the wife, since this information had been collected from each member of the couple in self-administered, simultaneous interviews. Socioeconomic information was of the usual type, including income level, occupation of husband and of wife, education of each member of the couple, age of each, whether the wife was working at the time of the interview, and ownership of a home. A list of all the variables tested is included in the appendix.

The overall approach in this analysis was to investigate these two basic hypotheses using two different dependent variables, first, the stock of durables owned, and second, the increase in the stock over a period of time, both in net and gross terms. In each case, a "best" set of socioeconomic and attitudinal variables was developed as described shortly, and to this set was added a variable for the stock of durables as of a preceding time. The exact procedure is best explained with regard to a particular dependent variable.

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*This variable was applicable only to Waves 4 and 9 and was constructed, for Wave 4, by summing for each couple all the likelihoods of .8 or more reported on the prior three waves; and for Wave 9 obtaining a similar sum over Waves 4-8 inclusive. Prior experimentation had shown that purchase likelihoods in this range were far more likely to be fulfilled than lower likelihoods.

3.1. Stock of Durables

Since the stock of durables clearly varies with time, the influence of different variables on the amount of st ck owned is best considered for different waves, to see whether the factors that are most effective in discriminating owners of many durables from owners of few durables are essentially the same over time.

For this purpose, the analysis was carried out at three different stages of the marriage -- the time of marriage, Wave 4 (after two years of marriage) and the most recent wave, after six years of marriage. The reasons for the selection of the first and the third times are self-evident; the selection of Wave 4 is based on an examination of the dispersion of durables owned wave by wave and finding that this dispersion was a maximum at that time.

In each case, the sample was divided into three groups as a basis for multiple discriminant analysis. These groups are owners of relatively few durables, an average number, and relatively many durables. The exact breaking points obviously varied with time, and were set to have approximately equal numbers in each group. These breaking points are:

	Few	Average	Many
Wave 1	0-3	4-5	6-11
Wave 4	1-4	5-6	7-12
Wave 9	2-8	9	10-12

The independent variables in this analysis are the aforementioned socioeconomic and attitudinal variables. Three different models were tested as follows:

1. To explore the contribution of all the socioeconomic variables, they were used in a discriminant analysis of the dependent variable of group membership as defined on the preceding page (Model 1).
2. At the same time, to test the importance of all the attitudinal variables, the entire set of such variables, including the purchase likelihood variable, was used in a separate discriminant model, using the same dependent variable (Model 2).
3. Based on the results of the previous two steps, those attitudinal and socioeconomic variables were selected that were clearly of major importance in terms of standardized coefficients, and a single multiple discriminant model estimated using this combined set of variables (Model 3). The number of durable goods owned as of the earlier stage was included as an independent variables for the Wave 4 and Wave 9 functions.

The results of these various computations are shown in Table 4. There are seven columns of figures in this table. The first column from the left is the value of Wilks' λ, a measure of "poorness of fit" of these functions, higher values representing poorer fits. The following three columns indicate the significance of the two functions (since there were three categories of the dependent variable), both individually and in an overall sense, based on the F test. The last three columns present an "accuracy classification matrix" for each model. In other words, each figure in these columns indicates what percent of the observations were classified in the correct category by the model. As an acid test of

4. Summary of Discriminant Model Results for Stock of Durables

Model	Wave	Wilks' λ	Significance of functions[a] Overall	Fn. 1	Fn. 2	Pct. correct on wave 1	4	9
1. 14 socioeconomic	1	.66	.01	.01	no	61**	52*	39
	4	.64	.01	.01	no		63**	38
	9	.66	.01	.01	no			58**
2. 20 attitudinal plus likelihood variable	1	.63	no	no	no	59**	39	26
	4	.66	no	no	no		62**	31
	9	.57	no	.05	no			59**
3. 11 attitudinal, 10 socioeconomic, a likelihood variable, and number of durables owned	1	.58	no	.05	no	64**	56**	37
	4	.19	.01	.01	no		93**	41
	9	.35	.01	.01	no			73**

[a] "No" means that function is not significant at .05 level.

predictive ability and, also, to indicate whether influencing variables seem to change over time, the model was applied to the later waves as well. For this reason, there are accuracy percentages, for the Wave 1 model in each case, also for Wave 4 and Wave 9, and for the Wave 4 model in each case also for Wave 9.

As is evident from Table 4, differences among these first two models are not large. Model 1, containing the socioeconomic variables, yields slightly better goodness of fit and accuracy classification than Model 2, containing the attitudinal variables. However, when the stock of durables is added to the equations, sharp improvement is obtained for the Wave 4 and Wave 9 functions (Model 3). The goodness of fit increases markedly, as evidenced by the decrease in the value of Wilks' lambda, while at the same time the classification accuracy percentage increase sharply.

Also evident from Table 4 is that these models do not have a long "life," at least in the case of the Wave 1 and the Wave 4 functions. In other words, a function fitted to data as of one time does not seem equally applicable to data for two or three years later. The only exception is Wave 1 of the models with the socioeconomic variables, which do appreciably better than naive forecasts for Wave 4 durable goods ownership. Even then, however, the accuracy of classification is appreciably less than that obtained for the period of observation.

Especially interesting is the fact that the same phenomenom exists for the models including stock of durables. Thus, whereas the Wave 4 function of Model 3 yields a much higher frequency of accurate classifications than the other models for Wave 4, little improvement is apparent when the same function

is "extrapolated" to classification of the observations for Wave 9. It would therefore seem that the effect even of this variable seems to be short lived.

One implication of this result is that the factors influencing durable goods ownership at one time are not the same as the influencing factors at a later time. This is not unexpected because, especially at the times of Wave 1 and Wave 4, these couples were still in the initial stages of family formation (in a few cases also of family dissolution), so factors that may influence durable goods ownership at one time may not be the same as those influencing durables ownership at a later time. It should be noted, however, that an alternate explanation could be that these findings are a result of "data searching," in view of the iterative process of selecting the best combinations of variables. With the relatively few observations, division of the sample into estimation and validation portions would not have been practicable in this instance. On the other hand, the uniformity of the results for all sets of variables would seem to suggest that they have significance beyond being just a statistical artifact.

To examine what types of variables are the most important in these models, and particularly to see what these models tell us on the validity of the saturation hypothesis, it is desirable to examine at least one of these models more carefully, and the logical choice would seem to be the best one, Model 3. The variables that were used in this model and the values of the standardized coefficients for each of the functions are shown in Table 5. Coefficients with an absolute value less than 1.00 are not shown in order to highlight the more important variables in the different component functions. The last line of this table indicates the significance level of each of the component functions.

5. Multiple Discriminant Estimates of Parameters of Model 3 for Stock of Durables

Variable	Wave 1		Wave 4		Wave 9	
	Fn. 1	Fn. 2	Fn. 1	Fn. 2	Fn. 1	Fn. 2
Economy minded (h)	a	a	a	1.42	1.15	a
Extravagant (h)	a	1.02	a	a	-1.23	a
Bargain seeking (h)	-1.28	a	-3.09	a	1.14	1.18
Price conscious (h)	1.25	a	a	a	-1.01	-1.25
Satisfied in life (h)	1.35	-1.43	a	1.08	a	1.37
Quality awareness (w)	a	-1.02	a	a	-1.41	a
Economy minded (w)	a	-1.04	-1.33	a	a	a
Experiment-prone (w)	a	1.98	a	a	a	a
Conservative (w)	a	a	-1.25	a	a	1.05
Timid (w)	a	1.17	a	a	a	a
Price conscious (w)	a	a	a	a	-1.12	a
Education (h)	1.40	-1.62	2.36	1.40	-1.50	a
Income level	a	a	-1.08	-1.51	a	a
Wife working	a	2.14	-1.20	-2.03	a	a
Home ownership	-2.57	a	-2.33	1.29	-1.66	a
Professional (h)	-1.40	2.05	a	a	-1.57	1.33
Managerial (h)	-1.47	a	a	a	a	1.79
Clerical (h)	a	a	a	2.07	a	1.17
Craftsmen (h)	a	-1.33	1.52	a	a	a
Semi-skilled (h)	a	-1.96	-1.23	a	-1.07	1.43
Unskilled (h)	1.04	a	a	1.03	-1.04	a
likelihood of buying	--	--	-2.16	1.82	a	a
Number of durables owned last wave	--	--	-5.81	a	-1.04	a
Significance level	.05	no	0.01	no	0.01	no

[a] Absolute value less than 1.00.

The direction of the effects of these variables has to be determined with reference to the pattern of the means of the centroids of the different functions. These means are shown in the following tabulation, where Group 1 represents ownership of few durable goods and Group 3 represents ownership of many durable goods:

	Wave 1		Wave 4		Wave 9	
Group	Fn. 1*	Fn. 2	Fn. 1*	Fn. 2	Fn. 1*	Fn. 2
1	0.77	0.06	-1.35	0.12	-1.71	0.67
2	0.57	-0.31	-2.06	0.76	-2.14	0.41
3	0.28	0.08	-3.45	0.33	-2.48	0.70

Functions that are statistically significant at the .05 level or more are marked with an asterisk, only Function 1 in each case. For these functions, it is apparent lower values always indicate groups with more durable goods owned.

Keeping this in mind and turning back to Table 5, we see that in the case of the number of durables owned, both of its coefficients for the two significant functions (Wave 4 and Wave 9) have a negative sign, and the coefficient of this variable for Wave 4 is by far the largest in the entire set. This means that the net contribution of the inventory effect is to lead to still more stocks of durable goods, a finding that contradicts the saturation hypothesis. In other words, there was a clear tendency for couples owning many durable goods to own still more later on, a tendency which was especially strong in the third year of the marriage.

Indeed, most of the coefficients of these three significant functions are in the negative direction, especially home ownership and professional occupation. Home ownership has a clear negative effect, meaning in the present contest that presence of this characteristic induces couples to own

more durables, as one might expect. On the other hand, education of the husband seems to have a negative effect on the stock of durables, at least in the first couple of years of marriage but acts to increase stocks later on. This may suggest that couples with higher education are more cautious in acquiring durables until their marriage, or their financial status, is on a firmer base.

Overall, the principal variables in these functions appear to be related to characteristics of the husband even though corresponding variables for the wives had been included initially. Rather surprisingly, in two of the three Function 1's, shopping attitudes of the husband appear to have more influence on durable goods purchases than shopping attitudes of the wife. From this point of view, however, it is relevant to note that these data include automobile purchases, a durable in which husbands are more likely to be interested.

A further test of these findings was made by subjecting these data to multiple regression analysis. This is possible in the present case since the dependent variable is essentially continuous, namely, number of durable goods. The results of this regression using the variables included in Model 3 are shown in Table 6, the coefficients being in standardized form. These results support the findings of the multiple discriminant analysis in the sense that they contradict the saturation hypothesis, support the uniformly high significance of home ownership and highlight the generally greater influence of shopping attitude of the husband than of the wife. On the other hand, education of the husband is influential by the present analysis only in the Wave 9 function while wife working is statistically significant in the Wave 1 function, acting to depress purchases of durables.

6. Multiple Regression Estimates of Parameters of Model 3 for Stock of Durables

Variable	Wave 1	Wave 4	Wave 9
Economy minded (h)	a	a	-0.20*
Extravagant (h)	a	a	0.17*
Bargain seeking (h)	0.18	0.15*	-0.12
Price conscious (h)	-0.19	a	a
Satisfied in life (h)	a	a	a
Quality awareness (w)	0.12	a	0.16
Economy minded (w)	a	a	a
Experiment-prone (w)	a	a	0.10
Conservative (w)	0.12	a	a
Timid (w)	a	a	a
Price conscious (w)	a	a	a
Education (h)	a	a	0.28**
Income level	0.12	a	0.31**
Wife working	-0.24*	a	-0.14
Home ownership	0.37**	0.22**	0.23**
Professional (h)	0.19	a	0.11
Managerial (h)	0.20	a	a
Clerical (h)	a	a	-0.13
Craftsmen (h)	0.13	a	a
Semi-skilled (h)	a	a	0.12
Unskilled (h)	-0.13	a	0.11
Likelihood of buying	--	0.25**	a
Number of durables owned last stage	--	0.72**	0.17*
R^2 (adj.)	0.14*	0.73**	0.39**

[a] Absolute value less than .10

* Significant at .05 level.

** Significant at .01 level.

3.2. Durables Purchases

The procedure used in the analysis of the purchase variables was essentially the same as that already described. Hence, it seems necessary only to present the results in this case. Moreover, since the earlier results were similar for the discriminant analysis and for the multiple regression, only the multiple regression approach was used in this case.

Two dependent variables were used to measure purchases. One was a measure of net change in the stock of durables, computed as the difference between the stock at one time and the stock at the earlier time. Two sets of differences were computed, one being the difference between the Wave 4 and Wave 1 stocks, and the other being the difference between the Wave 9 and the Wave 4 stocks. The other measure of durables purchases is a gross measure, obtained by aggregating all the purchases for both addition and replacement between two periods of time. Again, two such variables are involved, namely, all the purchases of these durables reported up to and including Wave 4, and all the purchases reported on Wave 5 to and including Wave 9.

The results obtained with the "best" regression functions with each of these two variables on Wave 4 and on Wave 9 are shown in Table 7. An examination of this table reveals, among other things, that the use of the net purchase variable yields a much higher goodness of fit than gross purchases, especially for the Wave 9 function. This would seem to suggest that the net measure may be more meaningful for this type of analysis, possibly because gross purchases necessarily include purchases made for replacement purposes, and these are not usually of a discretionary nature.

7. Multiple Regression Estimates of Parameters of Model 3 for Durables Purchases

Variable	Net purchases		Gross purchases	
	Wave 4	Wave 9	Wave 4	Wave 9
Economy minded (h)	-0.11	-0.14*	a	-0.16
Extravagant (h)	a	0.11*	a	0.12
Bargain seeking (h)	0.22*	a	0.26*	-0.11
Price conscious (h)	a	a	a	a
Satisfied in life (h)	a	a	a	a
Quality awareness (w)	a	0.11	a	a
Economy minded (w)	0.15	a	a	-0.15
Experiment-prone (w)	a	a	a	a
Conservative (w)	0.13	a	0.16	a
Timid (w)	a	a	-0.13	a
Price conscious (w)	a	a	-0.13	a
Education (h)	a	0.19**	a	0.17
Income level	0.14	0.21**	a	a
Wife working	a	a	a	-0.14
Home ownership	0.34**	0.16**	0.25*	a
Professional (h)	0.11	a	0.24	0.19
Managerial (h)	a	a	0.15	0.10
Clerical (h)	a	a	0.12	a
Craftsmen (h)	a	a	a	a
Semi-skilled (h)	0.17	a	0.33	0.24
Unskilled (h)	a	a	a	0.11
Likelihood of buying	0.38**	a	0.46**	0.17
Number of durables owned last stage	-0.38**	-0.83**	-0.13	-0.28**
R^2 (adj.)	0.37**	0.73**	0.26**	0.09

[a] Absolute value less than .10.

* Significant at .05 level.

** Significant at .01 level.

Even more significant for the hypotheses being tested is that the variable for the stock of durables at the previous stage is now uniformly negative, and highly significantly so in three of the four functions. In other words, both on a net basis as well as on a gross basis, ownership of a relatively large stock of these durables at an earlier stage serves to depress the number of durables purchased later on. This depressing influence seems stronger for net purchases than for gross purchases, undoubtedly due to the important role of replacement purchases in the latter case.

Also noteworthy is that the purchase likelihood variable is highly significant on the Wave 4 function but not later on. This may be due to the fact that this variable by Wave 9 represented an accumulation of purchase likelihoods over five waves (nearly three years), which may be too long for such a variable to be relevant for this purpose.

In other respects, the results of Table 7 are very similar to those obtained using the stock of durables as dependent. Income and home ownership act to increase purchases, though not always significantly so, and the husband's shopping attitudes are usually more relevant than the wife's shopping attitudes in influencing durables purchases. Education of the husband also appears as a positive influence on purchases, at least for Wave 9, as it has in the prior functions using the stock of durables as dependent.

4. Summary Comments

The results of this study would seem to suggest that young couples that begin a marriage with a relatively large stock of durables tend to continue to maintain large stocks even though their net purchases tend to decline relative to couples owning smaller stocks at the beginning of the marriage. This tendency appears to be supported at least for the first six years of the marriage when both different analytical techniques and different definitions of the dependent variable are used. Thus, the definition of stock employed and the data presented here allowed for ownership of only one of each durable so that, for example, two television sets in a household would be counted as one for the purpose of this analysis. However, when this definition was changed to allow couples to own more than one of a particular durable, eliminating only those purchases that were reported as being for replacement, the results were unchanged.

In effect, these findings would seem to suggest both a habit effect and a saturation effect of the stock of durables at the same time. A habit effect may be said to be present in the sense that once they begin to accumulate the durables, couples continue to do so. Indeed, virtually no instances were recorded in these data of couples reducing their stocks, although this is only to be expected in view of the fact that these couples were in the very early stages of family formation. At the same time, a saturation effect seems to exist in the sense that couples that have relatively larger stocks of durables are likely to purchase fewer durables in the future than couples with relatively largely smaller stocks.

In evaluating these results, however, it should be stressed that the data relate to an aggregate collection of durable goods and to a sample of young married couples in two smaller cities of the country and, of course, to only the first few years of married life. Still, these are the years in which most durables are probably acquired, certainly for most couples at a greater rate than in later years, and in this sense these findings should serve as a basis for testing similar hypotheses on a broader scale.

Appendix: List of Variables

Quality awareness (h)
Economic minded (h)
Experiment prone (h)
Extravagant (h)
Conservative (h)

Bargain seeking (h)
Timid (h)
Price conscious (h)
Life is full of opportunities (h)
Satisfied in life (h)

Quality awareness (w)
Economic minded (w)
Experiment prone (w)
Extravagant (w)
Conservative (w)

Bargain seeking (w)
Timid (w)
Price conscious (w)
Life is full of opportunities (w)
Satisfied in life (w)

Likelihood of buying
Education (h)
Level of family income
Wife working
Home ownership

Husband's occupation
Number of children
Plan for expenditures
Family financial officer

Husband's occupation:
- professional
- managerial
- clerical
- craftsmen
- semi-skilled
- unskilled
- services and household